

## **REMARKS**

In view of the above amendments and following remarks, reexamination and reconsideration are respectfully requested.

By this amendment, the previously pending claims have been canceled in favor of newly added independent claims 35-38. Accordingly, it is submitted that claims 35-38 are currently pending in this application. It is submitted that no new matter has been added.

It is noted that the Examiner has objected to the drawings for the reasons mentioned in paragraph 3 on page 2 of the Office Action. Particularly, the Examiner has indicated that element 920c1 in Figure 16 should be changed from "means" to --device--.

Accordingly, submitted herewith are a set of new drawings with the aforementioned changed required by the Examiner along with a cover letter. It is submitted that the drawings are now in proper form.

Next, it is noted that the Examiner has rejected claims 1-3, 6, 7, and 22-34 under 35 U.S.C. §102(e) and/or 103(a) as being unpatentable over the prior art for the reasons contained in paragraphs 4-10 on page 2-9 of the Office Action.

The Applicant notes, however, that the effective dates of each of the Horiike patent (USPN: 6,092,130) [February 26, 1998], Eifrig et al. patent (USPN: 6,026,195) [April 28, 1999], and Lee patent (USPN: 6,259,732) [June 2, 1998] is subsequent to the filing date of Japanese Priority Application 9-016112 (January 30, 1997). Furthermore, the Applicant notes that the priority application fully supports the claims currently pending in this application. Accordingly, the Applicant herein submits a Verified English Language Translation of Japanese Priority Application 9-016112, to thereby remove the Horiike patent, Eifrig et al. patent, and Lee patent as prior art.

Moreover, without intending to acquiesce to the Examiner's aforementioned rejection and in order to expedite allowance of this application, each of rejected claims 1-3, 6, 7, and 22-34 have been cancelled in favor of newly added independent claims 35-38.

Accordingly, it is submitted that the present invention, as now claimed in each of newly added independent claims 35-38, clearly patentably distinguishes over the remaining Lee patent (USPN:

5,990,956) and Murakami et al. reference (EP 0 538 834) relied upon by the Examiner for at least the following reasons.

The present invention provides an image coding/decoding method wherein the predictive image signal is subjected to a padding process in which values of insignificant pixels are replaced with padding pixel values generated on a basis of the significant pixel values. The padding process according to the present invention comprises: dividing a predictive image space formed by the predictive image signal into a first small image space comprising only pixels on odd-numbered pixel rows in the predictive image space and a second small image space comprising only pixels on even-numbered pixel rows in the predictive image space; generating first padding pixel values from values of significant pixels in the first small image space and replacing values of insignificant pixels in the first small image space with the first padding pixel values; and generating second padding pixel values from values of significant pixels in the second small image space and replacing values of insignificant pixels in the second small image space with the second padding pixel values, as particularly recited in each of newly added independent claims 35-38.

The Applicant would like to strongly emphasize that the present invention provides a method of **dividing** a predictive image space (for example, 8x8 pixels as shown in Figure 2) formed by the predictive image signal into a first small image space (for example, 4x4 pixels) comprising only pixels on odd-numbered pixels rows in the predictive image space and a second small image space (for example, 4x4 pixels) comprising only pixels on even-numbered pixels rows in the predictive image space **before** generating first and second padding pixel values for the first and second small images spaces, respectively. Thus, the present invention is able to prevent high frequency components of image signals forming the original image space from increasing due to a padding process of the image space by performing the padding process to the smaller image spaces which have higher pixel value correlation than that of the original image space.

It is strongly submitted that the above discussed features of the present invention are encompassed within the limitations of newly added independent claims 35-38 of the present application. Further, it is submitted that the above limitations, and the above advantages resultant

therefrom, are not disclosed or suggested by the Lee and Murakami et al. references taken either alone or in combination.

Regarding the Lee patent (USPN: 5,990,956), the Applicant notes that this reference discloses a method and apparatus for padding a video signal for use in a video encoder employing a shape adaptive discrete cosine transform technique. This reference merely discloses the division of the input video signal into a multiplicity of image blocks of  $N \times N$  pixels (i.e.,  $8 \times 8$  pixels) [see Fig. 3 and column 3 (lines 60-63)]. For comparison purposes, it is noted that the multiplicity of image blocks of the Lee system would correspond to, for example, the original image space 301 as shown in figure 2 of the present application. However, unlike the present invention as claimed in independent claims 35-38, it is noted that the Lee system does not disclose or suggest dividing the multiplicity of image blocks into smaller image spaces prior to performing padding.

Regarding the Murakami reference, the Applicant notes that this reference merely discloses a coding system for adaptively discriminating between a block which is effective for non-interleave blocking and a block which is effective for individual field blocking. Not only does this reference fail to disclose or suggest the dividing of an image space into smaller images spaces prior to padding as claimed in independent claims 35-38, this reference fails to even disclose or suggest a padding process.

Accordingly, the Applicant strongly submits that the Lee and Murakami references, either taken alone or in combinations, fail to disclose, suggest, or render obvious a padding process which comprises: dividing a predictive image space formed by the predictive image signal into a first small image space comprising only pixels on odd-numbered pixel rows in the predictive image space and a second small image space comprising only pixels on even-numbered pixel rows in the predictive image space; generating first padding pixel values from values of significant pixels in the first small image space and replacing values of insignificant pixels in the first small image space with the first padding pixel values; and generating second padding pixels values from values of significant pixels in the second small image space and replacing values of insignificant pixels in the second small image space with the second padding pixel values, as now particularly recited in each of newly added independent claims 35-38.

For the foregoing reasons, it is submitted that each of newly added independent claims 35-38 clearly is allowable.

In view of the foregoing, it is submitted that the present application now in fact clearly is in condition for allowance and the Examiner therefore is requested to pass this case to issue.

In the event, however that the Examiner has any comments or suggestions of a nature necessary to place this case in condition for allowance, then the Examiner is requested to contact Applicant's undersigned attorney by telephone to promptly resolve any such matters.

Respectfully submitted,

Choong Seng BOON

By: 

Dhiren R. Odedra  
Registration No. 41,227  
Attorney for Applicant

DRO/aeH  
Washington, D.C. 20006-1021  
Telephone (202) 721-8200  
Facsimile (202) 721-8250  
July 30, 2002